

**Amendments to the Claims**

Please amend the claims as follows:

1. (Currently Amended) A method for placing branch locations comprising the steps of: (a) identifying at least one service provider branch location; (b) identifying at least one service receiver; (c) identifying a measure of service receiver value; (d) calculating the value of each of said service receivers based on said measure of service receiver value; (e) determining which of said service provider branch locations is the closest service provider branch location by travel time for each of said service receivers; (f) determining a probability that each of said service receivers will utilize said closest service provider branch location.
2. (Canceled).
3. (Original) The method of claim 1 wherein said step of identifying a closest service provider branch location from said service provider branch locations for each of said service receivers includes the steps of: determining a travel time between each of said service receivers and one or more of said service provider branch locations; and for each of said service receivers, defining the service provider branch location with the shortest travel time as the closest service provider branch location for said service receiver.
4. (Original) The method of claim 3 including the further step of determining a value for each of said service provider branch locations.

5. (Original) The method of claim 4 wherein said step of determining a value for each of said service provider branch locations includes said step of summing for each service receiver for which said service provider branch location is said closest service provider branch location the products of (i) said value of said closest service receiver and (ii) said probability that said closest service receiver will utilize said service provider branch location.

6. (Original) The method of claim 5 including the further step of determining the value of the service provider branch network.

7. (Original) The method of claim 6 wherein said step of determining the value of the service provider branch network includes the step of determining network reach.

8. (Original) The method of claim 6 wherein said step of determining the value of the service provider branch network includes the step of determining total network travel time.

9. (Currently Amended) A method for placing branch locations comprising the steps of: (a) identifying at least one service provider branch location; (b) identifying at least one service receiver; (c) identifying a measure of service receiver value; (d) calculating the value of each of said service receivers based on said measure of service receiver value; (e) determining which service provider branch location is the closest

service provider branch location by travel time for each of said service receivers; and (f)  
determining a probability that each of said service ~~receives~~ receivers will utilize each of  
said service provider branch locations.

10. (Original) The method of claim 9 including the further steps of: (a) defining a  
probability threshold; (b) determining a value for each of said service provider branch  
locations by assigning a portion of said value of each service receiver to each service  
provider branch location having a probability for said service receiver above said  
probability threshold.

11. (Original) The method of claim 10 wherein said step of determining a value for  
each of said service provider branch locations includes the step of summing the products  
of (i) said portion of said value of each of said service receivers assigned to said service  
provider branch location and (ii) said probability that said service receiver will use said  
service provider branch location.

12. (Original) A method for optimizing a service provider network comprising the  
steps of: (a) selecting a network change parameter; (b) selecting a fitness parameter to be  
optimized; (c) selecting a calculation stop criterion; (d) applying a genetic algorithm to a  
population of solutions to create a new population of solutions; (e) assigning a value to  
each of said solutions of said new population to determine relative values of said  
solutions; and (f) repeating said steps (d) and (e) until said stop criterion is met.

13. (Currently Amended) The method of claim 12 wherein said step of assigning a value to each of said solutions comprises the steps of: (a) identifying at least one service provider branch location; (b) identifying at least one service receiver; (c) identifying a measure of service receiver value; (d) calculating the value of each of said service receivers based on said measure of service receiver value; (e) determining which of said service provider branch locations is the closest service provider branch location for each of said service receivers based on travel time between said service receiver and said service provider; (f) determining a probability that each of said service ~~receives~~ receivers will utilize said closest service provider branch location; (g) determining a value for each of said service provider branch locations; and (h) determining the value of said solution based on said values of each of said service provider branch locations contained therein.

14. (Original) The method of claim 13 wherein said step of applying a genetic algorithm to create a population of solutions includes the steps of: (a) discarding a number of solutions determined to be least valuable; (b) creating new, cross-over solutions from said solutions which have not been discarded; and (c) mutating a number of service provider locations within said new, cross-over solutions.

15. (Original) The method of claim 14 wherein said step of determining a value for each of said service provider branch locations includes the steps of: (a) defining for each of said service receivers a closest service provider branch location based on travel time between said service receiver and said service provider branch location; and (b) for each of said service provider branch locations, summing the products of (i) said value of each

of said service receivers for whom said service provider branch location is said closest service provider branch location and (ii) said probability that said service receiver will utilize said service provider branch location.

16. (Original) The method of claim 15 wherein said fitness parameter is maximized.

17. (Original) The method of claim 15 wherein said fitness parameter is minimized.

18. (Currently Amended) The method of claim 15 wherein said calculation stop criterion is a number of iterations of said genetic algorithm.

19. (Currently Amended) The method of claim 15 wherein said calculation stop criterion is a number of iterations of said genetic algorithm wherein said fitness parameter fails to be further optimized.

20. (Currently Amended) The method of claim 14 wherein said step of determining a value for each of said service provider branch locations includes the steps of: (a) calculating the value of each of said service receivers based on a measure of service receiver value; (b) determining a probability that each of said service ~~receives~~ receivers will utilize each of said service provider branch locations; (c) defining a probability threshold; (d) assigning each service receiver proportionally to each service provider branch location having a probability for said service receiver above said probability threshold; and (e) determining a value for each of said service provider branch locations

by summing the products of (i) said value of each of said service receivers assigned to said service provider branch location and (ii) said probability that said service receiver will use said service provider branch location.

21. (Original) The method of claim 20 wherein said fitness parameter is maximized.

22. (Original) The method of claim 20 wherein said fitness parameter is minimized.

23. (Currently Amended) The method of claim 20 wherein said calculation stop criterion is a number of iterations of said genetic algorithm.

24. (Currently Amended) The method of claim 20 wherein said calculation stop criterion is a number of iterations of said genetic algorithm without further optimization of said fitness parameter.